

Notice of Allowability

Application No.

09/430,029

Examiner

Elizabeth Slobodyansky, PhD

Applicant(s)

YANO ET AL.

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1652

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to AF amendment 19 July 2004.
2. ☒ The allowed claim(s) is/are 1-48 and 56.
3. ☒ The drawings filed on 29 October 1999 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

DETAILED ACTION

The AF amendment filed July 19, 2004 amending claims 3, 9, 10, 13, 17, 21, 22, 28, 34 and 55 and canceling claim 57 has been entered.

Claims 1-48, 55 and 56 are pending.

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

IN THE CLAIMS:

Amend claim 9 as follows:

9. An isolated DNA fragment containing a region encoding a toluene monooxygenase, wherein the region comprises a first sequence having a nucleotide sequence [of] from nucleotide 463 [..] to nucleotide 1455 [portion] of SEQ ID NO: 1 or a 100% complementary sequence thereof, encoding a polypeptide TomL having an amino acid sequence of SEQ ID NO:3, a second sequence having a nucleotide sequence [of] from nucleotide 1495[..] to nucleotide 1761 [portion] of SEQ ID NO: 1 or a 100% complementary sequence thereof, encoding a polypeptide TomM having an amino acid sequence of SEQ ID NO: 4, a third sequence having a nucleotide sequence [of] from nucleotide 1803[..] to nucleotide 3350 [portion] of SEQ ID NO: 1 or a 100% complementary sequence thereof, encoding a polypeptide TomN having an amino acid

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sequence of SEQ ID NO: 5, a fourth sequence having a nucleotide sequence [of] from nucleotide 3428[.] to nucleotide 3781 [portion] of SEQ ID NO: 1 or a 100% complementary sequence thereof, encoding a polypeptide TomO having an amino acid sequence of SEQ ID NO: 6, and a fifth sequence having a nucleotide sequence [of] from nucleotide 3810[.] to nucleotide 4871 [portion] of SEQ ID NO: 1 or a 100% complementary sequence thereof, encoding a polypeptide TomP having an amino acid sequence of SEQ ID NO: 7, wherein the first to fifth sequence include substitution of one base and wherein the first to fifth sequences are aligned so that expressed polypeptides can form said toluene monooxygenase[, wherein the first to fifth sequence include deletion, substitution or addition of one base].

Amend claim 10 as follows:

10. An isolated DNA fragment comprising a region having a nucleotide sequence [of] from nucleotide 234[...] to nucleotide 443 [portion] of SEQ ID NO: 1 or a 100% complementary sequence thereof, wherein said nucleotide sequence includes deletion, substitution or addition of one base, and wherein said DNA fragment encodes [encoding] a polypeptide having a property to enhance toluene monooxygenase activity[, wherein the isolated DNA fragment includes deletion, substitution or addition of one base].

In claim 11, line 3,

replace "6, 7, 9 or 56" with --6, 7, 56 or 9--.

Amend claim 13 as follows:

13. A recombinant DNA comprising an expression vector comprising a first promoter functionally linked to [and] a first DNA fragment comprising a region having a nucleotide sequence [of] from nucleotide 234[...] to nucleotide 443 [portion] of SEQ ID NO: 1 or a 100%complementary sequence thereof, wherein said nucleotide sequence includes deletion, substitution or addition of one base, and wherein said DNA fragment encodes [encoding] a polypeptide having a property to enhance toluene monooxygenase activity, and a second promoter functionally linked to [and the] a second DNA fragment, wherein the second DNA fragment is a DNA fragment according to any one of Claims 6, 7, 56 or 9 [6, 7, 9 or 56, wherein the first DNA fragment is functionally linked to the first promoter, and the second DNA fragment is functionally linked to the second promoter, and wherein the first and second DNA fragments include deletion, substitution or addition of one base].

Amend claim 17 as follows:

17. A transformant obtained by introducing a recombinant DNA into a host microorganism, where the recombinant DNA comprises a vector enabling maintenance or replication in a host, said vector including a DNA fragment ligated thereto [having a nucleotide sequence of SEQ ID NO: 1 or a 100% complementary sequence of SEQ ID NO: 1 and encoding a toluene monooxygenase], wherein the DNA fragment is a fragment of a nucleotide sequence of SEQ ID NO: 1 or a 100% complementary sequence of SEQ ID NO: 1 and is 4.9 kb or less, and wherein the DNA fragment

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includes deletion, substitution or addition of one base and encodes a toluene monooxygenase.

In claims 22 and 28, line 4,

replace "by using" with --with--.

In claim 34, line 3,

replace "by using" with --with--.

Cancel claim 55.

Authorization for this examiner's amendment was given in a telephone interview with Mr. George Ng on August 4, 2004.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth Slobodyansky, PhD whose telephone number is 571-272-0941. The examiner can normally be reached on M-F 10:00 - 6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ponnathapura Achutamurthy, PhD can be reached on 571-272-0928. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

E. Slobodyansky
Elizabeth Slobodyansky, PhD
Primary Examiner
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August 4, 2004